Managing Topics of Conversation

Michael Yeomans
&
Alison Wood Brooks
Managing Topics of Conversation
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Conversation is... a rich skillset

(Zajonc, 1960; Grice, 1975; Frank & Goodman, 2012; Pickering & Garrod, 2004a; 2004b; Misyak et al., 2014)
Managing Topics of Conversation

Conversation is... a rich skillset full of hard choices

(Crawford & Sobel, 1982; Lerner & Tetlock, 1999; Berger, 2014)
Managing Topics of Conversation
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Follow-Up Question-Asking

It doesn't hurt to ask... (JPSP, 2017)
It still doesn't hurt to ask... (JPSP, 2019)

(w/ Karen Huang, Alison Wood Brooks, Julia Minson & Francesca Gino)
Managing Topics of Conversation

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*(w/ Karen Huang, Alison Wood Brooks, Julia Minson & Francesca Gino)*

Topic Selection in Conversation

It still doesn't hurt to ask... *(working paper)*

*(w/ Alison Wood Brooks)*
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Follow-Up Question- Asking
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Both Studies
- 15 min open-ended conversations
- Strangers paired in dyads over ChatPlat
- Intervention: question-asking instructions
Follow-Up Question-Asking

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- Strangers paired in dyads over ChatPlat
- Intervention: question-asking instructions

Study 1
- 398 Behavioral Lab Participants (199 dyads)
- One partner is told to ask many/few questions
- Other partner given no instructions
Follow-Up Question-Asking

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- 15 min open-ended conversations
- Strangers paired in dyads over ChatPlat
- Intervention: question-asking instructions

Study 1
- 398 Behavioral Lab Participants (199 dyads)
- One partner is told to ask many/few questions
- Other partner given no instructions

Study 2
- 338 mTurk Participants (169 dyads)
- Both participants told to ask many/few questions (2x2)
Main Effect of Question-Asking

Study 1

Partner Liking

Question-Asking Instructions

High

Low
Main Effect of Question-Asking

Study 1

Partner Liking

<table>
<thead>
<tr>
<th>Question-Asking Instructions</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.5</td>
<td>5.0</td>
</tr>
</tbody>
</table>

The graph shows a comparison of partner liking for high and low levels of question-asking instructions.
Main Effect of Question-Asking

Study 1

Study 2

<table>
<thead>
<tr>
<th>Partner Liking</th>
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<tbody>
<tr>
<td>7</td>
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<td>6</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>4</td>
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Question-Asking Instructions

Partner's Instructions

Own Instructions

High

Low
Main Effect of Question-Asking

**Study 1**

**Study 2**

<table>
<thead>
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<tbody>
<tr>
<td>High</td>
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</tr>
<tr>
<td>Low</td>
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Own Instructions
- Red: High
- Blue: Low

Partner Liking

4 | 5 | 6 | 7

- The graph shows the main effect of question-asking in two studies. In Study 1, there is a significant difference in partner liking between high and low question-asking conditions. In Study 2, the difference is less pronounced but still exists, with high question-asking leading to higher liking compared to low question-asking conditions.
Main Effect of Question-Asking

Study 1

Study 2

Partner Liking

Question-Asking Instructions

High
Low

Partner's Instructions

High
Low

Own Instructions
High
Low
# Typology of Question-Asking

<table>
<thead>
<tr>
<th>Question</th>
<th>Example from Study 1</th>
<th>α</th>
<th>Q%</th>
</tr>
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<tbody>
<tr>
<td><strong>Follow-Up</strong></td>
<td>Person 1: I’m planning a trip to Canada. Person 2: Oh, cool. <strong>Have you been there before?</strong></td>
<td>.87</td>
<td>40.5%</td>
</tr>
<tr>
<td><strong>Full Switch</strong></td>
<td>Person 1: I am working at a dry cleaners. Person 2: <strong>What do you like doing for fun?</strong></td>
<td>.86</td>
<td>27.6%</td>
</tr>
<tr>
<td><strong>Partial Switch</strong></td>
<td>Person 1: Not super outdoorsy, but not opposed to a hike or something once in awhile. Person 2: <strong>Have you been to the beach in Boston?</strong></td>
<td>.47</td>
<td>5.5%</td>
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<tr>
<td><strong>Mirror</strong></td>
<td>Person 1: What did you have for breakfast? Person 2: I had eggs and fruit. <strong>How about you?</strong></td>
<td>.94</td>
<td>19.0%</td>
</tr>
<tr>
<td><strong>Introductory</strong></td>
<td>Person 1: hello! Person 2: <strong>Hey, how's it going?</strong></td>
<td>.93</td>
<td>5.8%</td>
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<tr>
<td><strong>Rhetorical</strong></td>
<td>Person 1: What's the craziest event you've been to? Person 2: Yesterday I followed a marching band around. <strong>Where were they going?</strong> It's a mystery.</td>
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Time Course of Question-Asking

Percentage of All Turns

Minutes into Conversation
Time Course of Question-Asking

![Graph showing the percentage of all turns in conversations over minutes into conversation, with introductory questions highlighted.]
Time Course of Question-Asking

![Graph showing the percentage of all turns over minutes into conversation for different question types: Introductory, Mirror, and Full Switch.](image-url)
Time Course of Question-Asking

![Graph showing the time course of question-asking with different question types: Introductory, Mirror, Full Switch, and Follow-Up. The x-axis represents minutes into conversation, and the y-axis represents the percentage of all turns. The graph shows distinct peaks and trends for each question type.](image-url)
Time Course of Question-Asking

The graph illustrates the percentage of all turns asked as a function of minutes into the conversation. Different question types are represented with distinct lines:
- **Introductory** (red line)
- **Mirror** (blue dashed line)
- **Full Switch** (black line)
- **Follow-Up** (green dotted line)
- **Part Switch** (gray line)
- **Rhetorical** (gray dashed line)

The x-axis represents minutes into the conversation, while the y-axis shows the percentage of all turns. Error bars indicate variability in the data.
# Distinctive Question Features

<table>
<thead>
<tr>
<th>Contextual Feature</th>
<th>Follow-Up</th>
<th>Switch</th>
<th>Intro</th>
<th>Mirror</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Count of turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time into Conversation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question in askee’s last turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question in asker’s last turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple questions in the turn</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
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<tr>
<td>Word Count of turn</td>
<td>.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time into Conversation</td>
<td>.25</td>
<td></td>
<td>-1.34</td>
<td></td>
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<tr>
<td>Question in askee’s last turn</td>
<td>—</td>
<td></td>
<td>-.43</td>
<td>.61</td>
</tr>
<tr>
<td>Question in asker’s last turn</td>
<td>.30</td>
<td>.12</td>
<td>-.33</td>
<td>-.12</td>
</tr>
<tr>
<td>Multiple questions in the turn</td>
<td>.08</td>
<td>-.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-question statement in turn</td>
<td>-.10</td>
<td></td>
<td></td>
<td>.37</td>
</tr>
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## Distinctive Question Features

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<th>Follow-up</th>
<th>Switch</th>
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</tr>
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<tbody>
<tr>
<td>which</td>
<td>how old</td>
<td>how are you</td>
<td>how about</td>
</tr>
<tr>
<td>why</td>
<td>do you like</td>
<td>hello</td>
<td>what about</td>
</tr>
<tr>
<td>what kind</td>
<td>travel</td>
<td>your name</td>
<td>yourself?</td>
</tr>
<tr>
<td>cool</td>
<td>fun</td>
<td>how are</td>
<td>and</td>
</tr>
<tr>
<td>nice</td>
<td>do you live</td>
<td>hi how</td>
<td>i am</td>
</tr>
<tr>
<td>wow</td>
<td>interests</td>
<td>today?</td>
<td>and you</td>
</tr>
<tr>
<td>is it</td>
<td>hobbies?</td>
<td>what is</td>
<td>what about you</td>
</tr>
<tr>
<td>how do</td>
<td>you a student</td>
<td>go?</td>
<td>and</td>
</tr>
<tr>
<td>where do</td>
<td>weather</td>
<td>name?</td>
<td>no, i</td>
</tr>
<tr>
<td>want to</td>
<td>you from?</td>
<td>are you?</td>
<td>yes, i</td>
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# Question Type Detector Accuracy

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<tr>
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<tbody>
<tr>
<td>Follow-up</td>
<td>1377</td>
<td>358</td>
<td>7</td>
<td>99</td>
</tr>
<tr>
<td>Switch</td>
<td>373</td>
<td>806</td>
<td>30</td>
<td>139</td>
</tr>
<tr>
<td>Introductory</td>
<td>2</td>
<td>17</td>
<td>202</td>
<td>18</td>
</tr>
<tr>
<td>Mirror</td>
<td>89</td>
<td>71</td>
<td>12</td>
<td>609</td>
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## Question Type Detector Accuracy

**Accuracy = 87.0%**

95%CI: [86.0, 88.0]

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How does Question-Asking Increase Liking?

Bootstrapped indirect effect (both studies)

Standardized $\beta = .412$, 95% CI = [.071, 1.11]
Follow-Up Questions in the Field
Follow-Up Questions in the Field

Speed Dating
(Ranganath et al., 2009)
Follow-Up Questions in the Field

Speed Dating
(Ranganath et al., 2009)
Follow-Up Questions in the Field

**Speed Dating**  
(Ranganath et al., 2009)

![Graph showing data points and trend line](image)

**Social ChatBots**  
(Dinan et al., 2019)
Follow-Up Questions in the Field

**Speed Dating**  
(Ranganath et al., 2009)  

![Chart showing percentage of turns with follow-up questions vs. percentage of partners wanting a second date for men and women.]

**Social ChatBots**  
(Dinan et al., 2019)  

![Chart showing follow-up question rate vs. human evaluation of chatbot.]
Follow-Up Future Directions
Follow-Up Future Directions

Content-aware detection
Follow-Up Future Directions

Content-aware detection

Machine follow-up generation
Follow-Up Future Directions

Content-aware detection

Machine follow-up generation

Human follow-up generation

(w/ Molly Moore & Julia Minson)
Managing Topics of Conversation

Follow-Up Question-Asking

It doesn't hurt to ask... (JPSP, 2017)
It still doesn't hurt to ask... (JPSP, 2019)

(w/ Karen Huang, Alison Wood Brooks, Julia Minson & Francesca Gino)

Topic Selection in Conversation

It still doesn't hurt to ask... (working paper)

(w/ Alison Wood Brooks)
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Topic Selection in Conversation
It still doesn't hurt to ask... (working paper)
(w/ Alison Wood Brooks)
The Topic of Conversation
Topic Detection

SEEKING LIFE'S BARE (GENETIC) NECESSITIES

COLD SPRING HARBOR, NEW YORK—How many genes does an organism need to survive? Last week at the genome meeting here, two genome researchers with radically different approaches presented complementary views of the basic genes needed for life. One research team, using computer analyses to compare known genomes, concluded that today's organisms can be sustained with just 250 genes, and that the earliest life forms required a mere 128 genes.* The other researcher mapped genes in a simple parasite and estimated that for this organism, 800 genes are plenty to do the job—but that anything short of 100 wouldn't be enough. Although the numbers don't match precisely, those predictions "are not all that far apart," especially in comparison to the 75,000 genes in the human genome, notes Sir Andrew Dickson Watson, University in Sweden. "I arrived at the 800 number, but coming up with a concrete answer may be more than just a matter of numbers. Other, particularly, more and more genomes are being mapped and sequenced. "It may be a way of organizing any newly sequenced genome," explains Arcady Mushegian, a computational molecular biologist at the National Center for Biotechnology Information (NCBI) in Bethesda, Maryland. Comparing all of these genomes will ultimately require a lot of labor. "It's a job that will never be done in a lifetime," he says. "Life is too complicated." The researchers' work was presented to the Genome Meeting here sponsored by Cold Spring Harbor Laboratory and Genome Research. (Blei, Ng & Jordan, 2003; Blei & Lafferty, 2007)
(Sacks, Schegloff & Jackson, 1979; Hardin & Higgins, 1996; **Hearst, 1997**; Passonneau & Litman, 1997; Drew & Holt, 1998; Galley et al., 2003; Schegloff, 2007; Nguyen et al., 2014)
Topic Selection: Theory
Topic Selection: Theory
Topic Selection: Theory
Topic Selection: Theory
Stay on topic?
Topic Selection: Theory

Stay on topic? …or switch?
Topic Selection: Theory
Topic Selection: Theory
Topic Selection: Theory
Topic Selection: Applications
Topic Selection: Applications

(Sounding Board; Fang et al., 2018)
Topic Selection: Applications

(Sounding Board; Fang et al., 2018)
Research Questions
Research Questions

Do we learn other people's topic preferences from what they say?
Research Questions

Do we learn other people's topic preferences from what they say?

Not well - we can be egocentric, overconfident, and oblivious
Research Questions

Do we learn other people's topic preferences from what they say?

Not well - we can be egocentric, overconfident, and oblivious

Does the flow of new topics affect our enjoyment of conversations?
Research Questions

Do we learn other people's topic preferences from what they say?
Not well - we can be egocentric, overconfident, and oblivious

Does the flow of new topics affect our enjoyment of conversations?
Conversation can be more enjoyable with frequent topic switching together
What is a Topic Preference?
Imagine you're meeting someone for the first time and having a friendly conversation, and s/he asks you the following question:

**What is the strangest thing about the place you grew up?**

What would you say in response? Please write your answer in the box below.
Imagine you're meeting someone for the first time and having a friendly conversation, and s/he asks you the following question:

Are you a religious person? Why?

What would you say in response? Please write your answer in the box below.
Imagine you're meeting someone for the first time and having a friendly conversation, and s/he asks you the following question:

**Do you have any fruit trees, plants, or a garden?**

What would you say in response?
Please write your answer in the box below.
What is a Topic Preference?

At this point in the conversation, would you want to talk more about this topic? Or would you want to switch to a new topic?

Please tell us your preference using the slider below, which ranges from -10 (strong preference to switch topics) to +10 (strong preference to stay on topic).
Preference Detection Game
Preference Detection Game

Do you have any fruit trees, plants or a garden?

No, I don't. My dad loves gardening though. Every summer he plants seeds and grows a vegetable garden. He has a PhD in agriculture, so he has a bunch of knowledge about growing vegetables. He loves gardening!

When was the last time you sang to yourself? To someone else?

Oh, I'm a terrible singer! I do still sing along to songs in private though. Just yesterday I was singing along to a Taylor Swift song. I never sing in front of people! I'm too embarrassed!
Preference Detection Game

Do you have any fruit trees, plants or a garden?

No, I don't. My dad loves gardening though. Every summer he plants seeds and grows a vegetable garden. He has a PhD in agriculture, so he has a bunch of knowledge about growing vegetables. He loves gardening!

When was the last time you sang to yourself? To someone else?

Oh, I'm a terrible singer! I do still sing along to songs in private though. Just yesterday I was singing along to a Taylor Swift song. I never sing in front of people! I'm too embarrassed!

Switch Topics

Stay on Topic
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**Do you have any fruit trees, plants or a garden?**

- No, I don't. My dad loves gardening though. Every summer he plants seeds and grows a vegetable garden. He has a PhD in agriculture, so he has a bunch of knowledge about growing vegetables. He loves gardening! 

**When was the last time you sang to yourself? To someone else?**

- Oh, I'm a terrible singer! I do still sing along to songs in private though. Just yesterday I was singing along to a Taylor Swift song. I never sing in front of people! I'm too embarrassed!

**Switch Topics**

-2

**Stay on Topic**

6
I'm an administrative assistant at a large university. I basically support several higher-up administrators. I don't really like my job. The only thing I do like is my coworkers. Most of them, anyway.

I value honesty in a friendship. I don't want to feel like someone is being fake with me or that I need to be fake with them. Open communication is key for me. I also value loyalty.
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I value honesty in a friendship. I don't want to feel like someone is being fake with me or that I need to be fake with them. Open communication is key for me. I also value loyalty.
Preference Detection Accuracy

Non-parametric, within-person
Preference Detection Accuracy

Non-parametric, within-person
Pilot Study with 50 Topics
What do you do for work? What do you like about it?
Why do you do these kinds of studies?
Are you a religious person? Why?
Do you have any fruit trees, plants, or a garden?
What's the strangest thing about where you grew up?
What is the cutest thing you've seen a baby or child do?
Would you like to be famous? In what way?
When did you last sing to yourself? To someone else?
If you were able to live to the age of 90 and retain either the mind or body of a 30-year-old for the last 60 years of your life, which would you want?
If you could change anything about the way you were raised, what would it be?
What do you value most in a friendship?
Your house, containing everything you own, catches fire. After saving your loved ones and pets, you have time to safely make a final dash to save any one item. What would it be? Why?
Topic Preference Detection
Topic Preference Detection

Study 1  (n=392, 654; mTurk)
   Writers & Readers recruited separately
Topic Preference Detection

**Study 1** (n=392, 654; mTurk)
Writers & Readers recruited separately

**Study 2** (n=172; in-lab)
Close others recruited as pairs
Topic Preference Detection

**Study 1**  
(n=392, 654; mTurk)  
*Writers & Readers* recruited separately

**Study 2**  
(n=172; in-lab)  
*Close others* recruited as pairs

**Study 3**  
(n=192 in-lab)  
*Discussed topics* with partner for 10 min
Study I - Accuracy

Preference Detection Accuracy

- Topic Mean
- Word Count
Study 1 - Accuracy

Preference Detection Accuracy

- Topic Mean
- Word Count
- One Human

***

50%
55%
60%
**Study I - Accuracy**

![Bar chart showing accuracy results with significance levels for different conditions: Topic Mean, Word Count, One Human, Three Humans. The bar heights indicate the accuracy percentages, with Three Humans showing the highest accuracy with an asterisk indicating statistical significance.](chart.png)
Reader Heuristics: Egocentrism

Guess of Partner's Preference

Own Preference for Topic
Reader Heuristics: Egocentrism

Study 1

Study 2

Study 3
Politeness Cues (R package)

Count per Person per Topic

- Negation
- First_Person_Start
- Actually
- First_Person_Plural
- Second_Person
- Positive_Emotion

Switch vs. Stay
Politeness Cues (R package)

- not, never
- **Negation**
  - I, me
  - Actually
  - in fact, really
  - First_Person_Start
  - First_Person_Plural
  - we, us
- **Second_Person**
  - you, yourself
- **Positive_Emotion**
  - great, sweet

Counts per Person per Topic

![Bar chart showing counts for different categories of Politeness Cues.](chart.png)
Word Count Signal

- cute baby
- famous
- fire rescue
- friend value
- garden
- how raised
- last sing
- like work
- mind body
- religious
- strangest
- why studies

Stay/Switch Rating
Study 1 - Accuracy

Preference Detection Accuracy

<table>
<thead>
<tr>
<th>Method</th>
<th>Accuracy</th>
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</thead>
<tbody>
<tr>
<td>Topic Mean</td>
<td>55%</td>
</tr>
<tr>
<td>Word Count</td>
<td>55%</td>
</tr>
<tr>
<td>One Human</td>
<td>55%</td>
</tr>
<tr>
<td>Three Humans</td>
<td>60%</td>
</tr>
<tr>
<td>NLP Model</td>
<td>55%</td>
</tr>
</tbody>
</table>

Significance Levels:
- ***: p < 0.001
- ns: p ≥ 0.05
Preference Detection Performance

<table>
<thead>
<tr>
<th></th>
<th>Strangers</th>
<th>Close Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preference</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>Detection Accuracy</td>
<td>0.25</td>
<td>0.2</td>
</tr>
</tbody>
</table>

*Significant difference
Study 2 Accuracy (close others)

Preference Detection Accuracy

- **Topic Mean**: ns
- **Word Count**: ***
- **Human**: ns

Y-axis: Preference Detection Accuracy
X-axis: Topic Mean, Word Count, Human
Study 2 Accuracy (close others)

Preference Detection Accuracy

- Topic Mean
- Word Count
- Human
- NLP Model

**Significance Levels:**
- ***: p < 0.001
- ns: not significant
Study 2 Accuracy (close others)

Preference Detection Accuracy

- ** Topic Mean
- ** Word Count
- ** Human
- ** NLP Model
- ** Human & NLP

Accuracy levels:
- *** 60%
- ** 55%
- * 50%
Partner Knowledge
Partner Knowledge

How many years have you known your partner?

Accuracy

- 0-1
- 1-2
- 2-5
- 5-10
- 10-20
- 20+
Partner Knowledge

Accuracy vs. How many years have you known your partner?

Confidence vs. How many years have you known your partner?
Study 2 Accuracy (close others)

Preference Detection Accuracy

- Topic Mean
- Word Count
- Human No Text
- Human
- NLP Model
- Human & NLP
Study 3: Live Chat
Study 3: Live Chat
Study 3 Accuracy (live chat)

- Topic Mean
- Word Count
- Human

Preference Detection Accuracy

* ns
Topic Preference Indicators

Dialogue Acts

(Passonneau & Litman, 1997; Jurafsky & Martin, 2017)

- backchannels
- pauses
- interruptions
- laughter
Topic Preference Indicators

Dialogue Acts

(Passonneau & Litman, 1997; Jurafsky & Martin, 2017)

- backchannels
- pauses
- interruptions
- laughter

Question Types

(Huang, Yeomans, Brooks, Minson & Gino, 2017; ibid, 2019)

- mirror  "how about you?"
- follow-up  "cool, when was that?"
- switch  "did you hear the news?"
Signaling Topic Preferences

- **Started_Topic**
- **FollowUp_Qs**
- **Backchannels**
- **Laughter**
- ** Interruptions**

![Bar chart showing counts per person per topic for different signaling topics.](chart)
Study 3 Accuracy (live chat)

![Bar chart showing preference detection accuracy across different methods: Topic Mean, Word Count, Human, and Dialogue NLP. The chart indicates significant differences among the methods, with Dialogue NLP having the highest accuracy.]

- **Topic Mean**
- **Word Count**
- **Human**
- **Dialogue NLP**
Study 3 Accuracy (live chat)

Preference Detection Accuracy

- Topic Mean
- Word Count
- Human
- Dialogue NLP
- Human & NLP
Research Questions

Do we learn other people's topic preferences from what they say?
Not well - we can be egocentric, overconfident, and oblivious

Does the flow of new topics affect our enjoyment of conversations?
Conversation can be more enjoyable with frequent topic switching together
Do we learn other people's topic preferences from what they say?
Not well - we can be egocentric, overconfident, and oblivious

Does the flow of new topics affect our enjoyment of conversations?
Conversation can be more enjoyable with frequent topic switching together
Inertia of the Current Topic

Stay on topic? …or switch?
Topic Switch Empowerment

Treatment: Topic-Switching Instructions
frequent switching vs. natural switching

Primary Outcome: Enjoyment (1-7 likert, $\alpha = .89$)

I enjoyed this conversation.
I thought this conversation was engaging.
I had an interesting conversation with this person.
I felt happy during this conversation.
I was watching the clock, wishing time would pass more quickly.
## Topic Switch Empowerment

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<th>Study 4</th>
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<td>online chat room (n=678, pre-registered)</td>
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<tr>
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<td>Third condition: mixed dyads</td>
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Treatment: Topic-Switching Instructions
frequent switching vs. natural switching
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Study 3 Outcomes

![Bar chart showing comparison between Natural Switching and Frequent Switching in terms of Conversation Enjoyment. The chart indicates a higher enjoyment level for Frequent Switching.](chart.png)
Study 3 Outcomes

![Bar Graph 1: Conversation Enjoyment](image)
- Natural Switching: 5.5
- Frequent Switching: 6.0

![Bar Graph 2: Preference for Topics](image)
- Natural Switching: 0.8
- Frequent Switching: 2.2
Inter-Turn Silences

Percent of Turns

Pre-Turn Silence
- None
- 1 s
- 2-3 s
- 4-9 s
- 10+ s

-20s -10s Topic Switch +10s +20s
Inter-Turn Silences

Pre-Turn Silence
- None
- 1 s
- 2-3 s
- 4-9 s
- 10+ s

Percent of Turns

-20s  -10s  Topic Switch  +10s  +20s
Inter-Turn Silences

![Graph showing the percentage of turns with different pre-turn silences from -20s to +20s. The graph includes data for 0s, 1s, 2-3s, 4-9s, and 10+s silences, with error bars indicating variability.](image-url)
Inter-Turn Silences

Seconds Until Next Switch

- Natural Switching
- Frequent Switching

Seconds of Mutual Silence

None | 1 s | 2-3 s | 4-9 s | 10+ s
Study 4 Design

Pre-registered Replication

- 678 mTurkers in dyads
- 10min online chat
- No topic list
Study 4 Design

Pre-registered Replication

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Study 4 Design

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Study 4 Enjoyment

![Bar chart showing average enjoyment across different categories: Both Frequent (green), Mixed Frequent, Mixed Natural, Both Natural.](chart.png)
Study 4 Enjoyment

The diagram presents the average enjoyment scores for different conditions. The x-axis represents the conditions: Both Frequent, Mixed Frequent, Mixed Natural, and Both Natural. The y-axis shows the average enjoyment, ranging from -0.2 to 0.2.

- Both Frequent: Moderate positive enjoyment
- Mixed Frequent: Neutral to slightly negative enjoyment
- Mixed Natural: Slightly negative to neutral enjoyment
- Both Natural: Neutral to slightly positive enjoyment
Topic Switches

- Both Frequent
- Mixed Frequent
- Mixed Natural
- Both Natural
Topic Encouragement

The chart shows the topic encouragement per person in different conditions:

- **Both Frequent** shows the highest encouragement with approximately 1.9 per person.
- **Mixed Frequent** has an encouragement of around 1.4 per person.
- **Mixed Natural** shows an encouragement of about 1.6 per person.
- **Both Natural** has the lowest encouragement, around 1.4 per person.

The bars are accompanied by error bars indicating the variability of the measurements.
Perspective-Taking Tasks

Perceptual  Personal
Perspective-Taking Tasks

Perceptual                           Personal
Perspective-Taking Tasks
Perspective-Taking Tasks
Perspective-Taking Tasks
Future Directions

Topic Preference Explicitness
Future Directions

Topic Preference Explicitness

Switch Empowerment
Future Directions

Topic Preference Explicitness

Switch Empowerment

Topic Plan-Making
Future Directions

Topic Preference Explicitness

Switch Empowerment

Topic Plan-Making

Leaving: the ultimate topic switch
Thank You!

www.mikeyeomans.info

https://osf.io/t4h3z/